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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,783

04/06/2006

Hideki Kitamura

NISH.0001

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7066 7590 10/13/2009

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EXAMINER

NELSON, MICHAEL B

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,783	Applicant(s) KITAMURA ET AL.	
	Examiner MICHAEL B. NELSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 8-24 is/are pending in the application.
- 4a) Of the above claim(s) 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-13 and 20-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/08/09 has been entered.

Claim Rejections - 35 USC § 103

2. Claims 1-4, 8-13 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable Yoshida et al. (JP 07-085722), see Translation (NPL document U), in view of Kouyama et al. (U.S. 4,897,238).

Regarding claims 1 and 20-24, Yoshida et al. discloses a semiconductive film having a composition of 5-40 parts conductive filler to 100 parts polymer ([0008]), inter alia poly ether ether ketone, ([0007]). The conductive filler of Yoshida et al. is disclosed as being sold under the trade name "KETCHIEN black EC," which is believed to be the same as the instantly disclosed "Ketjen Black EC" (Example 1, Page 36). Yoshida et al. also discloses that the semiconductive film have a volume resistivity of between 10^{11} and 10^{12} ([0013]), with a variation of 1-10 times the minimum value, which overlaps the instantly claimed 1-5. The thickness is also disclosed as being 150 microns thick ([0012]). The carbon black used has a DBP oil absorption rate that reads on the claims (See Claim 1). Yoshida et al. does not explicitly disclose the product by process steps of claim 1. Kouyama et al., with is also directed towards extruded sheets made out of PEEK and resins substantially chemically equivalent to PEEK for

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the purposes of extrusion (C1, L55-65, C8, L35-65). Kouyama et al. discloses that the extrusion occur with a lip clearance of 0.5mm and a cooling temperature of 79 degree C, which is about 80 degrees C (C17, L30-40). The cooling conditions and extrusion methods of Kouyama et al. are disclosed as resulting in an amorphous film (C10, L30-40). One having ordinary skill in the art would have found it obvious to have used the lip clearance and cooling temperature of Kouyama et al. in the method of making the film from the composition of Yoshida et al. in order to impart desirably amorphous properties to the product.

Regarding the "Folding Endurance," considering the substantially identical composition and method of forming the film of the disclosed semiconductive resin of the prior art with the instantly disclosed examples (i.e. Example 1, page 36-37), the semiconductive film of modified Yoshida et al. would exhibit the instant claimed properties. Regarding the consistency of the film's thickness, it would have been obvious to one having ordinary skill in the art to have maintained the most consistent thickness along the length of the film in order to minimize variation in the semiconductive properties of the belt.

Regarding claims 8-13, modified Yoshida et al. discloses all of the limitations as set forth above. Additionally, Yoshida et al. discloses that the conductive filler is carbon black and has a DBP in the range of 30-700 ml (i.e. B and A with DBP of 200-700 and 30-180 ml, [0004]). The carbon black used "KETCHIEN black EC," is believed to be the same as the instantly disclosed "Ketjen Black EC" (Example 1, Page 36) and is an acetylene or oil furnace black. Given the substantially similar type of carbon black (i.e. tradename and DBP ratio) the conductive filler of Yoshida et al. will exhibit the claimed volume resistivity and volatile matter content as instantly

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claimed. Yoshida et al. also discloses that the semiconductive film be used as a charge control member either as part of a tuber roller or a semiconductive belt ([0010]).

Response to Arguments

3. Applicant's arguments filed on 06/30/09 are considered moot in light of the new grounds of rejection which were necessitated by applicant's amendments. Arguments which are still deemed relevant are addressed below.

4. Regarding applicant's arguments that product by process limitations are required to achieve the instant thickness uniformity, the current grounds of rejection read on the product by process limitations and thereby render the uniform thickness obvious. The examiner notes that applicant's remarks seem to show that the product by process limitations carry patentably weight (2nd paragraph of Page 12 and last paragraph on Page 6) in so much as they result in an effect on the final product. This is a moot issue since the same limitations are read upon by the prior art.

5. Applicant argued against the reciprocating folds limitation on the basis that because the prior art did not read on the process limitations the resulting film could not be said to inherently possess this property, however, in light of the new grounds of rejection which do in fact read on the process limitations, this arguments is deemed moot.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/
Supervisory Patent Examiner, Art Unit 1794

/MN/
08/12/09